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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,437	08/17/2000	Subrata Mukherjee	27943-00392	6134

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Brian D Walker
Jenkins & Gilchrist PC
3200 Fountain Place
1445 Ross Avenue
Dallas, TX 75202-2799

EXAMINER

NGUYEN, ALAN V

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,437

Applicant(s)

MUKHERJEE, SUBRATA

Examiner

Alan Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/17/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/17/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al (US 6,535,730) in view of Lin et al (US 6,603,849), hereinafter Chow and Lin, respectively.

Regarding **claims 1 and 15** Chow discloses an apparatus and method for a wireless centrex service that can execute a call transfer service (**figure 20**), comprising a transferring end-point (**Mobile Station, MS 101**) involved in a held call with a first subscriber (**PSTN 1215**) and an active call with a second subscriber (**MS-2 101b**) (**column 52, lines 25-30 explains that the call between MS and PSTN is placed on hold, and call initiation is established with MS-2**), the transferring end-point having an active port (**Voice Access Port 2, VAP2 103b**) associated with the active call (**"the VAP2 103b sends a Connect message 2017 to the local digital switch LDS", column 53, lines 12-14**), a held port associated with the held call (**"the local digital switch 104 sends a Hold message 1910 to the Voice Access Port, VAP 103, the VAP places the call on hold", column 50, lines 17-19**) and at least one additional port; and

a controlling node (**Local Digital Switch, LDS 104**) connected to the transferring

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end-point, the controlling node being adapted to order the transferring end-point to relay communications receive at the active port to the first subscriber and relay media packets received at the held port to the second subscriber upon initiation of the call transfer service to connect the first subscriber and the second subscriber (***"If the MS 101 uses now presses the "send" button once, a message is sent to the VAP to initiate completion of the call transfer {connecting the call from the PSTN to the LDS to the call from the LDS to the MS2}", column 51, lines 18-23; the LDS 104 relays packets since it receives signaling messages from the mobile station in the active call.)*** but not the transferring end-point in a transferred call, the transferring end-point being capable of making and receiving additional calls on the at least one additional port (***figure 1, element 1***) after the call transfer service has been performed (***column 51, lines 40-45 states the use of a Release Complete message that states the release of the transferring end-point, MS 101. MS 101 is then able of place and receive new calls***).

Chow fails to expressly show the system utilizing a packet switched local area network that is able to switch media packets between the subscribers.

Lin teaches the use of directing phone calls through an H.323 system that utilizes an A-bis gateway that can route packet-switched data and circuit-switched data (***"Voice and data are sent to and from the first H.323 endpoint via the Gateway, which converts the voice and data between the IP and PLMN/PSTN format", column 3, lines 19-24***).

It would have been obvious to one having ordinary skill in the art at the time the

invention was made to adapt the H.323 standard into Chow's centrex apparatus, in particular, adapting the features of the A-bis gateway into the Local Digital Switch of Chow. This allows the routing of media packets between calls, as taught by Lin. The motivation is a more versatile system that is able to switch both voice and data packets to cater to the broad demands of today.

Regarding **claims 2 and 16**, with the features in parent claims 1 and 15 addressed above, respectively, Chow as modified, discloses where the transferring end-point comprises a mobile station in wireless communication with an A-bis gateway within the packet switched local area network, with the A-bis gateway having an active port, held port and at least one additional port (**"Voice and data are sent to and from the first H.323 endpoint via the Gateway, which converts the voice and data between the IP and PLMN/PSTN format", column 3, lines 19-24**).

Regarding **claims 3 and 17**, with the features in parent claims 2 and 16 addressed above, Chow, as modified, discloses where the controlling node is an access node connected to the A-bis gateway, the access node being further adapted to order the A-bis gateway to disconnect the active call and held call upon initiation of the call transfer service (**Column 51, lines 40-47 states for release of the MS 101, the Local Digital Switch LDS 104 sends a Release Complete message to the active call and held call to indicate that the LDS has completed the call release process. Therefore, the LDS has a means to disconnect the active call and held call upon initiation of the call transfer**).

Regarding **claims 4 and 18**, with the features in parent claims 3 and 17

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addressed above, Chow, as modified, discloses where the A-bis gateway is adapted to convert between the media packets containing data that are transmitted over the packet switched local area network and circuit-switched information containing data that are transmitted between the mobile station and the A-bis gateway (**"Voice and data are sent to and from the first H.323 endpoint via the Gateway, which converts the voice and data between the IP and PLMN/PSTN format", column 3, lines 19-24 of Lin**).

Regarding **claim 5**, with the features in parent claim 3 addressed above, Chow, as modified, discloses a base transceiver station connected to the A-bis gateway and in wireless communication with the mobile station (**figure 1, interface 3 shows an air interface that couples the cellular phone to the gateway**), and the access node is further adapted to order the base transceiver station to release radio resources assigned to the active call and the held call upon initiation of the call transfer service (**column 51, lines 40-45 states the use of a Release Complete message that states the release of the transferring end-point, MS 101. The BTS must therefore release the active call and held call**).

Regarding **claims 6 and 19**, with the features in parent claims 3 and 17 addressed above, Chow, as modified, discloses the A-bis gateway has a media port (**figure 1, element 1**) associated with the mobile station, the media port being linked to the active port, the access node being further adapted to order the A-bis gateway to disconnect the link between the media port and the active port (**column 51, lines 40-45 states the use of a Release Complete message that states the release of the**

transferring end-point, MS 101. Since the MS 101 is released from the transferred call, the media port is understood to be disconnected from the active port).

Regarding **claims 7 and 20**, with the features in parent claims 3 and 17 addressed above, Chow, as modified, discloses where the A-bis gateway is an anchor A-bis gateway, and where the transferring end-point further comprises

a non-anchor A-bis gateway (**figure 1, element 104**), the mobile station being handed over from the anchor A-bis gateway to the non anchor A-bis gateway prior to initiating the call transfer service, the non-anchor A-bis gateway having a media port (**figure 1, element 1**) associated with the mobile station and a non anchor port associated therewith, the non-anchor port being connected to the active port, the access node being further adapted to order the non-anchor A-bis gateway to release the non-anchor port to disconnect the active port from the non-anchor port (**column 51, lines 40-45 states the use of a Release Complete message that states the release of the transferring end-point, MS 101. Since the MS 101 is released from the transferred call, the media port is understood to be disconnected from the active port**).

Regarding **claims 8 and 21**, with the features in parent claims 3 and 17 addressed above, Chow, as modified, discloses where the mobile station hands over into an additional network outside of the packet switched local area network prior to initiating the call transfer service, and where the transferring end-point further comprises a gateway connected to the A-bis gateway and the mobile station, the gateway being adapted to convert between the packet switched local area network and the additional

network (***Chow states in column 49, lines 15-16 about a call transfer from the MS 101 of a PSTN. Chow, as modified, discloses the A-bis gateway to bridge the data packets of MS 101 and voice data of the PSTN***), the gateway having a gateway port associated with the mobile station associated therewith, the gateway port being connected to the active port, the access node being further adapted to order the gateway to release the gateway port to disconnect the active port from the gateway port (***"Voice and data are sent to and from the first H.323 endpoint via the Gateway, which converts the voice and data between the IP and PLMN/PSTN format", column 3, lines 19-24 of Lin***).

Regarding **claims 9 and 22**, with the features in parent claims 3 and 17 addressed above, Chow, as modified, discloses where the access node is further adapted to order the A-bis gateway to release the active port and the held port in response to disconnection of the transferred call by the first subscriber or the second subscriber (***Inherent, disconnection of a call between two subscribers would automatically release the respective active port and held port of the call between the two subscribers***).

Regarding **claims 10 and 23**, with the features in parent claims 3 and 17 addressed above, Chow, as modified, discloses a Gatekeeper connected to the access node, the Gatekeeper being adapted to send and receive signaling messages between the first subscriber and the second subscriber via the access node and the A-bis gateway after the call transfer service has been performed (***Column 53, lines 19-21 states that after the call transfer the active call in progress is between the PSTN***

1215 and MS2 101b. The LDS connects these two calls. The LDS therefore must have a means to relay the signaling messages of the mobile station MS2 101b).

Regarding **claims 11 and 24**, with the features in parent claims 1 and 15 addressed above, Chow, as modified, discloses where the controlling node is the transferring end-point, the transferring end-point being further adapted to send and receive signaling messages between the first and second subscriber after the call transfer service has been performed (**Column 53, lines 19-21 states that after the call transfer the active call in progress is between the PSTN 1215 and MS2 101b. The LDS connects these two calls. The LDS therefore must have a means to relay the signaling messages of the mobile station MS2 101b).**

Regarding **claims 12 and 25**, with the features in parent claims 1 and 15 addressed above, Chow, as modified, discloses where the first subscriber and the second where the first subscriber and the second subscriber are additional end-points within the packet switched local area network (**Column 49, lines 8-10 states that the transfer-to call can either be inside or outside the local network. The original caller MS 101 is inside the network and can place a call to another MS in the network).**

Regarding **claims 13 and 26**, with the features in parent claims 1 and 15 addressed above, Chow, as modified, discloses where where at least one of the first subscriber and the second subscriber are within an additional network outside of the packet switched local area network (**Chow states in column 49, lines 15-16 about a call transfer from the MS 101 to a PSTN).**

Regarding **claims 14 and 27**, with the features in parent claims 13 and 26 addressed above, Chow, as modified, discloses where a gateway connected to the transferring end-point, the gateway being adapted to convert between the packet switched local area network and the additional network (***"Voice and data are sent to and from the first H.323 endpoint via the Gateway, which converts the voice and data between the IP and PLMN/PSTN format", column 3, lines 19-24 of Lin***), the media packets that are transmitted to and from the at least one of the first subscriber and the second subscriber that are within the additional network being routed through the gateway (***Chow states in column 49, lines 15-16 about a call transfer from the MS 101 to a PSTN***).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to show the state of the art with respect to audio conferencing with call transfer:

US Patent (6,650,901) to Schuster et al

US Patent (5,999,965) to Kelly

US Patent (6,650,745) to Bauer et al

US Patent (6,014,377) to Gillespie

The following patent is cited to show the state of the art with respect to packet-based networks and H.323 networks:

US Patent (6,614,784) to Glitho et al

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US Patent (6,646,997) to Baxley et al


US Patent (6,466,662) to Klaghofer et al

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Nguyen whose telephone number is 703-305-0369. The examiner can normally be reached on 8am-5pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

AVN
November 27, 2003


RICKY NGO
PRIMARY EXAMINER